# Claims

1. Method for cracking disk-like or plate-like production parts along a prespecified fracture plane, whereby the respective production part is clamped on both sides of the fracture plane between clamping jaw pairs and the clamping jaw pairs are moved towards each other under the action of force in such a way that the production part along the fracture plane is subjected to a tensile stress alternately on the upper side and underside.

2. Method according to claim 1, characterised in that the tensile stress is generated by a periodically changing rocking motion of the clamping jaw pairs towards each other.

3. Method according to claim 2, characterised in that the periodically changing rocking motion of the clamping jaw pairs is superimposed by a tensile force which pulls the jaw pairs apart essentially perpendicular to the fracture plane.

4. Method according to claim 2, characterised in that the flexural fatigue stress generated by the periodically changing rocking motion of the clamping jaw pairs in the area of the fracture plane of the production part is introduced in a continuously increasing way.

5. Method according to claim 2, characterised in that the flexural fatigue stress generated by the periodically changing rocking motion of the clamping jaw pairs in the area of the fracture plane of the production part is introduced in a pulsating way.

6. Method according to claim 3, characterised in that the tensile force is continuously increased.

7. Method according to claim 3, characterised in that the tensile force is introduced in a pulsating way.

8. Method according to claim 1 or 2, characterised in that the frequency of the motion is between 0.1 and 10 Hz.

9. Method according to claim 7, characterised in that the frequency of the tensile force is between 0.1 and 10 Hz.

10. Method according to one or more of claims 1 to 9, characterised in that the force for the motion is generated hydraulically.

11. Method according to claim 3, 6, 7 or 9, characterised in that the tensile force is generated hydraulically.

12. Method according to one or more of claims 1 to 5 and 8 and 10, characterised in that, to generate the motion relative to an immovable base, both jaw pairs are moved towards each other.

13. Method according to one or more of claims 1 to 5 and 8 and 10, characterised in that, to generate the motion relative to an immovable base, one jaw pair is immovable and the other jaw pair is moved.

14. Method according to claim 1, characterised in that the production part is provided with a fracture notch on the upper side and/or the underside in the area of the fracture plane.

15. Method according to claim 14 for cracking a disk-like production part, characterised in that the fracture notch encloses an angle relative to the radius.

16. Method according to claim 15, characterised in that the angle is between 5° and 30°.

17. Method according to claim 14 or 15, characterised in that the fracture notch on the upper side of the production part is offset relative to the fracture notch on the underside.

18. Method according to claim 1, characterised in that the free ends of the clamping jaw pairs extend from opposite sides to as far as the fracture plane.

19. Method according to claim 18, characterised in that the fracture notches are created by cutting edges, which are arranged in the area of the free ends of the jaws of one of the two jaw pairs.

20. Method according to claim 19 for cracking a disk-like production part, characterised in that the cutting edges enclose an angle relative to the radius of the disk-like production part.

21. Method according to claim 20, characterised in that the angle is between 5° and 30°.

22. Device for performing the method according to one or more of the preceding claims 1 to 21,
- with a base (1),
- a first jaw pair movably-mounted on the base
- a second jaw pair movably-mounted on the base
- a drive (6), with which the movably-mounted jaw pairs can be moved periodically to and fro, and
- a control unit with which the frequency and force of the to and fro movement of the two jaw pairs can be adjusted.

23. Device for performing the method according to one or more of the preceding claims 1 to 21,
- with a base (1),
- a first jaw pair immovably-mounted (2) on the base (1)
- a second jaw pair (3) movably-mounted on the base (1)
- a drive (6), with which the movably-mounted second jaw pair can be moved periodically to and fro, and
- a control unit with which the frequency and force of the to and fro movement of the second jaw pair can be adjusted.

24. Device according to claim 22 or 23, characterised in that the drive (6) comprises a hydraulic unit with at least one pump (11), at least one valve arrangement (9) and at least one actuator cylinder (7, 8), which act on one or both jaw pairs.

25. Device according to claim 24, characterised in that the valve arrangement (9) comprises a hydraulic proportional, servo or control valve.

26. Device according to claim 24 or 25, characterised in that the valve arrangement comprises a controllable pressure-reducing valve (11).